



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,627	02/20/2002	Greg Volgas	HCC-12 (306*203)	1948

7590 05/03/2004

Connolly, Bove, Lodge & Hutz, LLP
P.O. Box 2207
Wilmington, DE 19899-2207

EXAMINER

CLARDY, S

ART UNIT PAPER NUMBER

1616

DATE MAILED: 05/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/081,627	VOLGAS ET AL.	
	Examiner	Art Unit	
	S. Mark Clardy	1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-60 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-60 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1616

Claims 1-60 are pending in this application claims the benefit under 35 USC 119(e) of US Provisional Application No. 60/270,311, filed February 21, 2001.

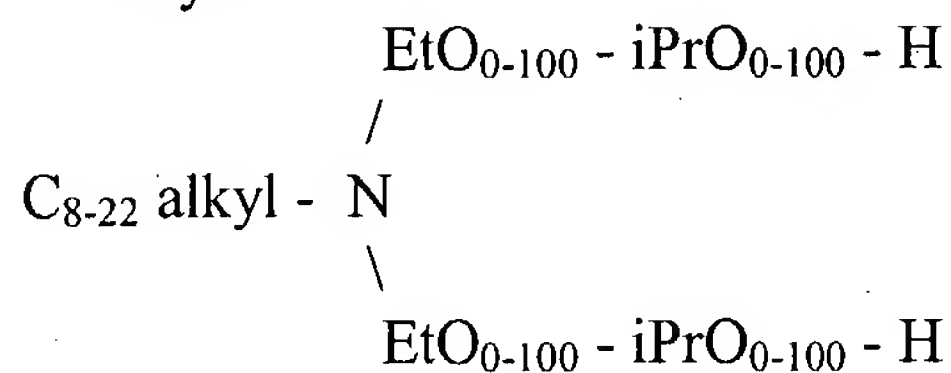
Applicants' claims are drawn to agrochemical compositions comprising:

- a) a (mono/di/tri)carboxylic in an eye irritating amount, or phosphor-ic/-ous acid

Mono-COOH: formic, acetic, propionic, butyric, valeric	(claim 5)
Di-COOH: oxalic, malonic, succinic, glutaric	(claim 6)
Tri-COOH: citric	(claim 7)
phosphoric, phosphorous acid	(claims 8, 9, 29)

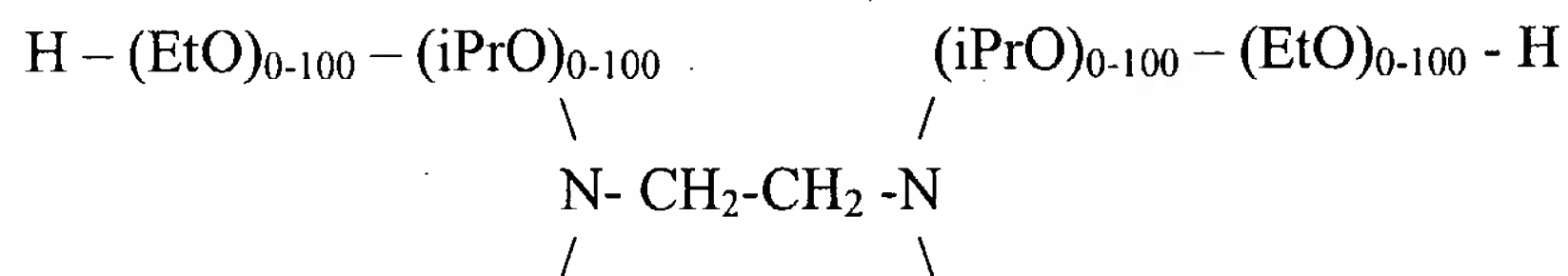
- b) an amine surfactant

fatty amine alkoxylate (claim 10)



Tallowamine ethoxylate (claim 12)

alkoxylated ethylenediamine (claim 11)



- c) a water soluble agricultural chemical (fertilizer, pesticide, micronutrient, herbicide, insecticide, fungicide); exemplified:

glyphosate, glufosinate (claims 20-22)

chloramben, dicamba (claim 24)

phenoxycarboxylic acid herbicides (claim 25)

pyridine carboxylic acid herbicides (claim 27).

Art Unit: 1616

Exemplified compositions comprise 2,4-D, glyphosate, or dicamba as active agents; tallowamine ethoxylate surfactant; citric, acetic, propionic, or ascorbic acid, and an optional alcohol ethoxylate surfactant.

The previously noted corrections have been made; the 112 rejections are withdrawn. Note that in the first line of claim 1, the word "of" should be deleted (or "comprising of" should be amended to read "consisting of").

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-60 are again rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Roberts et al (US 5,877,112, cited in IDS Paper No. 2) and Turner¹.

Roberts et al, again, teach the utility of combining water soluble herbicides such as IPA glyphosate (col 4, line 1; claims 6, 12) with phosphate ester surfactants (col 2) and applicants' ethoxylated amine surfactants (col 3) to enhance solubility of the active agents at low pH (abstract). While the examples in Roberts et al have phosphate ester concentrations above applicants' upper limit of 3%, it is also noted that Roberts et al teaches that the concentration may range from 1 to 99% (col 3, lines 4-5), thus the disclosure reads on applicants' lower concentration ranges.

Turner, again, teaches that ethoxylated amine surfactants were known to be better than nonionic surfactants in improving glyphosate toxicity, with performance increasing with

¹ Turner, D. J. "Effects on glyphosate performance of formulation, additives and mixing with other herbicides". Chapter 15 in *The Herbicide Glyphosate*. Grossbard et al, eds. P. 221-240. 1985.

Art Unit: 1616

increased EO content (p. 224, lines 5-7). Further, added acidic components such as oxalic, citric, tartaric, phosphoric and lactic acids also enhanced glyphosate activity (p. 230)

One of ordinary skill in the art would be motivated to combine these references because they disclose herbicidal, specifically glyphosate, compositions and adjuvants which are useful for imparting desired characteristics to such compositions, i.e., enhanced solubility and activity.

Thus, again, it would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to have combined the phosphorous acid, phosphoric acid, or carboxylic acids, with the amine surfactants and agriculturally active agents (i.e., herbicides) as claimed herein because the prior art teaches that applicants' acidic components and amine surfactants are useful for activity enhancement in herbicidal (glyphosate) compositions, and because the ethoxylated amine surfactant would function to enhance the solubility of the active agent in an acidic composition.

While applicants may distinguish their claims from the prior art by means of various ranges or characteristics (i.e., eye irritating amounts), comparative evidence demonstrating the criticality for such ranges is required.

No unobvious or unexpected results are noted; no claim is allowed.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

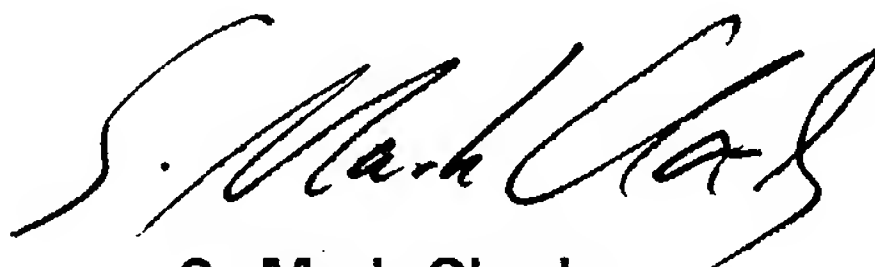
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

Art Unit: 1616

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103c and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Mark Clardy whose telephone number is (703) 308-4550.

A handwritten signature in black ink, appearing to read "S. Mark Clardy", is positioned above the printed name.

S. Mark Clardy
Primary Examiner
AU 1616

April 30, 2004